

**Amendments to the Claims:**

**Claims 1-8 (Canceled).**

9. **(Currently amended)** A method for reducing the amount of adverse reactions in a mammal at an injection site of a live attenuated bacterial vaccine, wherein:

the method comprises administering submucosally the vaccine, whereby the amount of adverse reactions at the injection site is reduced,

the live bacterial vaccine comprises bacteria that cause ~~replicate at the injection site,~~  
~~thereby causing~~ abscess formation when administered intramuscularly, and

the reduction of the amount of adverse reactions is measured by the amount or size of abscesses at the mucosal injection site compared to an intramuscular injection site.

10. (Previously presented) The method according to claim 9, wherein the vaccine is administered into the submucosa of the labiae.

**Claim 11-12 (Canceled).**

13. (Previously presented) The method according to claim 20, wherein the mammal is a horse.

14. (Previously presented) The method according to claim 20, wherein the mammal is a ruminant.

15. (Previously presented) The method according to claim 20, wherein the mammal is a pig.

16. (Previously presented) The method according to claim 20, wherein the mammal is a dog.

**Claims 17-20 (Canceled).**

21. (Previously presented) A method for systemic application of live attenuated bacteria to a mammal, wherein:

the method comprises administering the live attenuated bacteria submucosally to the mammal,

the live attenuated bacteria cause abscess and/or lesion formation in the mammal if the live attenuated bacteria are instead administered intramuscularly or intradermally to the mammal, and

any abscess and/or lesion formation at the site of the submucosal administration is less in total size than the abscess and/or lesion formation that would occur if the bacteria are instead administered intramuscularly or intradermally to the mammal.

22. (Previously presented) A method according to claim 21, wherein the live attenuated bacteria cause abscess and/or lesion formation in the mammal if the live attenuated bacteria are administered intramuscularly to the mammal.

**Claims 23-24 (Canceled).**

25. (Previously presented) The method according to claim 21, wherein the mammal is a horse.

26. (Previously presented) The method according to claim 21, wherein the mammal is a ruminant.

27. (Previously presented) The method according to claim 21, wherein the mammal is a pig.

28. (Previously presented) The method according to claim 21, wherein the mammal is a dog.